Pushing the Envelope			
1997 Science			
Learning Standards			
Illinois Science			
Grades 4-5			
Activity/Lesson	**State**	**Standards**	
Chemistry (pgs. 25-41)	IL	SCI.4-5.12.C.2b	Know and apply concepts that describe properties of matter and energy and the interactions between them. Describe and explain the properties of solids, liquids and gases.
Physics and Math (pgs. 43-63)	IL	SCI.4-5.12.D.2b	Know and apply concepts that describe force and motion and the principles that explain them. Demonstrate and explain ways that forces cause actions and reactions (e.g., magnets attracting and repelling; objects falling, rolling and bouncing).
Rocket Activity (pgs. 69-75)	IL	SCI.4-5.12.D.2b	Know and apply concepts that describe force and motion and the principles that explain them. Demonstrate and explain ways that forces cause actions and reactions (e.g., magnets attracting and repelling; objects falling, rolling and bouncing).

Pushing the Envelope			
1997 Science			
Learning Standards			
Illinois Science			
Grades 6-8			
Activity/Lesson	**State**	**Standards**	
History of Aviation Propulsion (pgs. 5-9)	IL	SCI.6-8.13.A.3b	Know and apply the accepted practices of science. Analyze historical and contemporary cases in which the work of science has been affected by both valid and biased scientific practices.
Types of Engines (pgs. 11-23)	IL	SCI.6-8.12.D.3b	Know and apply concepts that describe force and motion and the principles that explain them. Explain the factors that affect the gravitational forces on objects (e.g., changes in mass, distance).
Chemistry (pgs. 25-41)	IL	SCI.6-8.12.C.3b	Know and apply concepts that describe properties of matter and energy and the interactions between them. Model and describe the chemical and physical characteristics of matter (e.g., atoms, molecules, elements, compounds, mixtures).
Physics and Math (pgs. 43-63)	IL	SCI.6-8.12.D.3b	Know and apply concepts that describe force and motion and the principles that explain them. Explain the factors that affect the gravitational forces on objects (e.g., changes in mass, distance).